

EXHIBIT H

'361 Patent, Claim 1 Language	Accused Instrumentality
Claim 1. A computer implemented system for presenting social network provided outputs to a mobile electronic device dependent on a location, in response to the mobile electronic device user's input,	<p>CarPlay-enabled Hyundai vehicles utilize a computer implemented system for presenting social network provided outputs to a mobile electronic device dependent on a location, in response to the mobile electronic device user's input.</p> <p>In Hyundai vehicles, "Android Auto and Apple CarPlay allow you to access the most commonly used smartphone features, including...navigation" (excerpted from Ref. 34, Page 10). One of the many Hyundai models that supports CarPlay includes the 2020 Hyundai Elantra (see, <i>e.g.</i>, Ref. 28; Ref. 33, Page 33; Ref. 34, Page 10). For purposes of the present claim charts, the 2020 model Hyundai Elantra will be detailed and considered exemplary. On information and belief, other CarPlay-enabled models from Hyundai operate similarly.</p>
comprising:	<p>For purposes of the present claim charts, the recited "computer implemented system" can be considered to comprise the combination of the Hyundai vehicle, Apple CarPlay, the corresponding iPhone handset, plus the associated operating systems and application software.</p>
a hardware data input port configured to receive information from the mobile electronic device user defining the user input;	<p>For purposes of the present claim charts, the recited "social network" can be considered to comprise the community of drivers that share information such as road conditions and other navigational parameters using the CarPlay capabilities.</p>
	<p>For purposes of the present claim charts, the recited "mobile electronic device" is considered to comprise an iPhone or similar Apple device that interfaces with CarPlay.</p> <p>The word "comprising" terminating the preamble of a patent claim means "including, but not necessarily limited to".</p> <p>The system utilized by CarPlay-enabled Hyundai vehicles involves a hardware data input port configured to receive information from the mobile electronic device user defining the user input.</p> <p>As one example, a CarPlay user can submit a request to "Find coffee near me" (Ref. 11). The ability to submit such a request shows that the system involves a hardware data input port configured to receive information from the mobile electronic device user defining the user input.</p>

an automated hardware processor configured to define a user request dependent on the user input and metadata associated with the received information from the mobile electronic device user, comprising at least the location of the mobile electronic device determined by an automated hardware geospatial positioning system;

As another example, a community of highway travelers can use CarPlay to report traffic-related incidents and situations (see, e.g., Ref. 6). For example, an associated traveler can indicate that "There's something on the road" (Ref. 6). This same reference also reveals that an associated traveler can "Report an accident" (Ref. 6).

The system utilized by CarPlay-enabled Hyundai vehicles involves an automated hardware processor configured to define a user request dependent on the user input and metadata associated with the received information from the mobile electronic device user, comprising at least the location of the mobile electronic device determined by an automated hardware geospatial positioning system.

For example, the user can submit a request that prompts the system to query the database for other location-dependent social network information. For instance, the user might instruct the system to "Find coffee near me" (Ref. 11), which would include metadata associated with the received information from the mobile electronic device user, comprising at least the location of the mobile electronic device determined by an automated hardware geospatial positioning system.

In addition, the user might elect to have the system provide navigation information to a particular destination. One specific example appearing in the documentation recites "Take me to the Golden Gate Bridge" (Ref. 11).

The prosecution history of the application that matured into the '361 Patent confirms that the recited "geospatial positioning system" is GPS. GPS is known in the art as an acronym for Global Positioning System. It is also known in the art that Apple iPhones—such as those used with CarPlay-enabled models from Hyundai—have GPS capability (see, e.g., Ref. 10). Such GPS capability is often used to determine the location of the subject mobile electronic device, and to relay that location to certain remote systems.

an automated hardware communication interface port configured to:

automatically transmit the user request to a social network database comprising a plurality of roadway condition records having time information and location information associated with respective roadway conditions;

automatically receive location-dependent social network information from the social network database, selectively dependent on the transmitted user request; and

The system utilized by CarPlay-enabled Hyundai vehicles involves an automated hardware communication interface port. For instance, each subject Apple CarPlay-compatible iPhone is known to contain a modem (see, e.g., Ref. 24). This modem facilitates bilateral communication between the subject Apple device and a variety of networks. This manner of communication involves an automated hardware communication interface port (e.g., of the subject Apple CarPlay-compatible iPhone).

Further, the automated hardware communication interface port of the subject Apple CarPlay-compatible iPhone is configured to automatically transmit the user request to a social network database comprising a plurality of roadway condition records having time information and location information associated with respective roadway conditions.

A community of highway travelers can use CarPlay to report traffic-related incidents and situations (see, e.g., Ref. 6). For example, an associated traveler can indicate that "There's something on the road" (Ref. 6). This same reference also reveals that an associated traveler can "Report an accident" (Ref. 6). In a similar way, construction work and corresponding delays can be reported to a community database using CarPlay technology. In order for this to be useful, the associated technology needs to know the time and the location of delays and other road conditions.

The system utilized by CarPlay-enabled Hyundai vehicles involves automatically receiving location-dependent social network information from the social network database, selectively dependent on the transmitted user request.

Using the CarPlay technology, the community database comprising traffic-related incidents and situations can, upon request of the Hyundai driver or passenger, communicate the salient details back to the Hyundai driver or passenger. In fact, it has been explained that "incident markers for Accident, Hazard, and Road Work are displayed in Maps for other users" (Ref. 6).

communicate a message dependent on the received location-dependent social network information for creating a new record in the social network database, comprising time information and location information of a respective roadway condition;

The system utilized by CarPlay-enabled Hyundai vehicles involves communicating a message dependent on the received location-dependent social network information for creating a new record in the social network database, comprising time information and location information of a respective roadway condition.

A community of highway travelers can use CarPlay to report traffic-related incidents and situations (see, e.g., Ref. 6). For example, a traveler can indicate that "There's something on the road" or can "Report an accident" (Ref. 6). Documentation germane to CarPlay reveals that an electronic map displayed in the Hyundai vehicle can include "incident markers" (Ref. 6). It is further stated that "Incident markers show information about hazards...and accidents...When you're near their locations, you can report their status" (excerpted from Ref. 6). In order for the associated technology to operate as described, the physical location of the hazard or accident—as well as the physical location of the Hyundai vehicle—are necessarily known and mutually communicated.

As another example, consider the companion technology dubbed "Siri". Siri is an Apple iPhone voice assistant (see, e.g., Ref. 8).

Documentation detailing Siri contains a scenario wherein, say, the driver of a Hyundai vehicle wishes to communicate an estimated time of arrival with a friend (see, e.g., Ref. 8). In order for this to work properly, the associated technology needs to know the location of delays and other road conditions, along with the current location of the Hyundai vehicle itself.

an automated hardware user interface configured to selectively present the received social network information ranked according to at least one social network ranking factor.

The system utilized by CarPlay-enabled Hyundai vehicles involves an automated hardware user interface configured to selectively present the received social network information ranked according to at least one social network ranking factor.

The '361 Patent discloses that the recited "social network ranking factor" can be, for example, "distance from the Phone user's current

location" (excerpted from '361 Patent, Column 15, Lines 35-40). As relates specifically to the example of physical proximity as the recited "ranking factor", documentation germane to CarPlay reveals that an electronic map displayed in the Hyundai vehicle can include "incident markers" (Ref. 6). It is further stated that "When you're near their locations, you can report their status" (Ref. 6).

As another example usage of the recited "ranking factor", documentation germane to CarPlay states that "Apple evaluates incoming incident reports. When there's a high level of confidence in reports that an incident has been cleared, its incident marker is removed from Maps" (Ref. 6). Establishment of said "high level of confidence" is another instance consistent with the recited "social network ranking factor". Indeed, the '361 Patent expressly discloses "credibility of the poster" (excerpted from '361 Patent, Column 15, Line 46-48) as one exemplary ranking factor.

'361 Patent, Claim 2 Language	Accused Instrumentality
<p>Claim 2. The computer implemented system according to claim 1, wherein the received information comprises human speech, further comprising a speech to text converter, wherein the defined user input comprises a transcript of at least a portion of the human speech.</p>	<p>For at least the reasons detailed above, Claim 1 is infringed by the accused instrumentality.</p> <p>Hyundai documentation reveals that a CarPlay-enabled Hyundai includes voice recognition technology (see, e.g., Ref. 33, Page 21; Ref. 34, Pages 13-14; Ref. 34, Pages 17-18).</p> <p>Similarly, recall from the analysis of Claim 1 above that an Apple CarPlay-compatible iPhone can accommodate a companion technology dubbed "Siri". Siri is an Apple CarPlay-compatible iPhone voice assistant (see, e.g., Ref. 8; Ref. 33, Page 33; Ref. 33, Page 35).</p> <p>Documentation from Apple explains that the user of the Apple CarPlay-compatible iPhone can report traffic incidents using Siri (see, e.g., Ref. 6). For instance, in a sub-section entitled "Report an incident" (Ref. 6) one exemplary Apple document recites:</p> <p style="padding-left: 40px;">"Siri: Say something like: * 'Report an accident' * 'There's something on the road' * 'There's a speed check here'" (excerpted from Ref. 6).</p>

'361 Patent, Claim 3 Language	Accused Instrumentality
Claim 3. The computer implemented system according to claim 1, wherein the mobile electronic device comprises a cell phone.	For at least the reasons detailed above, Claim 1 is infringed by the accused instrumentality. As detailed above in the context of Claim 1, published documentation reveals that a user can connect an Apple CarPlay-compatible iPhone to the exemplary Hyundai vehicle via a USB connection port. It is well known in the art that an iPhone is one embodiment of a "cell phone", as recited in this patent claim.

'361 Patent, Claim 5 Language	Accused Instrumentality
<p>Claim 5. The computer implemented system according to claim 1, further comprising a speech recognition engine to translate speech into searchable words within the mobile electronic device.</p>	<p>For at least the reasons detailed above, Claim 1 is infringed by the accused instrumentality.</p> <p>Hyundai documentation reveals that a CarPlay-enabled Hyundai includes voice recognition technology (see, e.g., Ref. 33, Page 21; Ref. 34, Pages 13-14; Ref. 34, Pages 17-18).</p> <p>Recall from the analysis of Claim 1 above that an Apple CarPlay-compatible iPhone can accommodate a companion technology dubbed "Siri". Siri is an Apple CarPlay-compatible iPhone voice assistant (see, e.g., Ref. 8; Ref. 33, Page 33; Ref. 33, Page 35).</p> <p>Documentation from Apple explains that the user of the Apple CarPlay-compatible iPhone can report traffic incidents using Siri (see, e.g., Ref. 6). For instance, in a sub-section entitled "Report an incident" (Ref. 6) one exemplary Apple document recites:</p> <p style="padding-left: 40px;">"Siri: Say something like: * 'Report an accident' * 'There's something on the road' * 'There's a speed check here'" (excerpted from Ref. 6).</p>

'361 Patent, Claim 7 Language	Accused Instrumentality
Claim 7. The computer implemented system according to claim 1, wherein the social network database comprises a database of road conditions.	For at least the reasons detailed above, Claim 1 is infringed by the accused instrumentality. Using the CarPlay technology, the community database comprising traffic-related incidents and situations can, upon request of the Hyundai driver or passenger, communicate the salient details back to the Hyundai driver or passenger. In fact, it has been explained that "incident markers for Accident, Hazard, and Road Work are displayed in Maps for other users" (Ref. 6). Each of these three exemplary situations constitutes "road conditions", as that phrase is disclosed and claimed in the '361 Patent.

'361 Patent, Claim 10 Language	Accused Instrumentality
<p>Claim 10. The computer implemented system according to claim 1,</p> <p>wherein the received social network information is ranked according to a combination of ranking factors comprising a proximity of a location associated with a respective record and the location of the mobile electronic device.</p>	<p>For at least the reasons detailed above, Claim 1 is infringed by the accused instrumentality.</p> <p>As explained above in the context of Claim 1, the '361 Patent discloses that the requisite social network ranking factor can be, for example, "distance from the Phone user's current location" (excerpted from '361 Patent, Column 15, Lines 35-40). And, as relates specifically to the use of physical proximity as the recited "ranking factor", documentation germane to CarPlay reveals that an electronic map displayed in the Hyundai vehicle can include "incident markers" (Ref. 6). It is further stated that "Incident markers...When you're near their locations..." (excerpted from Ref. 6).</p> <p>Thus, it is apparent that the location of the mobile electronic device that is being used and transported in the subject Hyundai vehicle is being compared and evaluated with respect to the proximity to one or more such incident markers.</p>

'361 Patent, Claim 11 Language	Accused Instrumentality
<p>Claim 11. The computer implemented system according to claim 1,</p> <p>wherein the location of the mobile electronic device is determined by at least one of an automated geospatial positioning system and an automated cell phone tower triangulation system.</p>	<p>For at least the reasons detailed above, Claim 1 is infringed by the accused instrumentality.</p> <p>Recall that the prosecution history of the application that matured into the '361 Patent confirms that the recited "geospatial positioning system" is GPS. GPS is known in the art as an acronym for Global Positioning System. It is also known that Apple iPhones—such as those used with CarPlay-enabled Hyundai vehicle hosting an Apple iPhone possesses GPS capability (see, <i>e.g.</i>, Ref. 10). Such GPS capability is often used to determine the location of the subject Apple CarPlay-enabled Hyundai vehicle hosting the Apple iPhone.</p> <p>Also notice that documentation detailing CarPlay includes an illustration of the CarPlay screen displaying the cellular "5G" symbology (see, Ref. 17). In most such instances, the associated constellation of cellular towers performs triangulation to ascertain the location of the mobile electronic device.</p>

'361 Patent, Claim 12 Language	Accused Instrumentality
<p>Claim 12. The computer implemented system according to claim 1, wherein the automated hardware user interface comprises a geographic map.</p>	<p>For at least the reasons detailed above, Claim 1 is infringed by the accused instrumentality.</p> <p>A document germane to an exemplary CarPlay-enabled Hyundai vehicle contains instructions about "Navigation" (Ref. 33, Page 27). Moreover, this document makes reference to "Basic features on the map screen" (Ref. 33, Page 27).</p> <p>In addition, Hyundai documentation reveals the capability of an exemplary CarPlay-enabled Hyundai vehicle accessing "Apple Maps" (Ref. 33, Page 35).</p> <p>Further, illustrations appearing in Hyundai documentation germane to a typical CarPlay-enabled Hyundai vehicle provide images of various geographic maps (see, e.g., Ref. 33, Page 27; Ref. 34, Page 14; Ref. 34, Page 16; Ref. 34, Page 18).</p> <p>Moreover, various illustrations of a CarPlay-enabled Hyundai vehicle depict "Maps" (see, e.g., Ref. 33, Page 35; Ref. 34, Page 10) appearing on the associated Hyundai display console.</p>

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